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OWL PELLETS AND INSECTS.

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If the persevering naturalist desires to know what small mammals inhabit the region in which he is interested, and much else about other wild creatures, we would recommend that he inquire of the resident barred owl, if any such there be. That fluffy individual sits all day on his perch, most likely in some secluded grove of cedars, and though he may close his eyes, he keeps his ears wide open, and you will probably not see him if you call. What you will find under his roost will be masses of hair, bones and the remains of various small animals of which he has eaten, and then thrown up as pellets of undigested material. He not only catches birds, including other owls, but also snakes, fish, frogs and insects; but it is his gastronomic entomology of which we will here make record.

On March 31, 1907, I was fortunate in finding under the roost of one of these owls on Staten Island, a large pellet three inches long by one inch in diameter. It consisted largely of the bones of frogs, a goodly number of feathers from a small bird, and very plainly the remains of several water beetles. Upon carefully taking the pellet apart, it was discovered that the owl had captured four female *Dytiscus fasciventris*, as shown by the grooved elytra, and also what appeared to be a male of the same species. There was in addition the remains of two *Hydrocharis obtusatus*.

In some pellets which Mr. Waldron De W. Miller, of the American Museum of Natural History, found under the roost of a barred owl near Plainfield, N. J., we discovered the remains of four *Dytiscus*

verticalis, three *Dytiscus fasciventris* and two *Hydrocharis obtusatus*. While the heads of these water beetles, when found in the pellets, are usually whole, yet the owl breaks them occasionally, but the head and nearly round coxæ are well preserved and are among the most conspicuous objects when the mass is broken open. One can usually "prove" the contents of a pellet by checking off the number of heads against the wing-covers.

I am also indebted to Mr. James Chapin for a number of barred owl pellets from Staten Island in which we have found the remains of insects. In one there were five *Dytiscus verticalis*, some of the heads being snipped in two; in another a *Dytiscus fasciventris* (?); in another a *Dytiscus verticalis*, and in still another, one female *Dytiscus fasciventris* and one *Carabus limbatus*.

We have also found the remains of some grasshoppers in barred owl pellets.

It will be noticed that all of the water beetles here mentioned are large insects, and it may be, we think, correctly argued from this that the owl is unable to catch in his talons any of the more numerous small species, since his claws are not adapted to picking up little things.

There seem to be numerous records that some species of owls go fishing, and we have had ample proof on Staten Island that the barred owl eats catfish, many frogs and what large water beetles he can catch.

Insect remains have been found in the pellets of the barn owl and in those of the long-eared owl, but not so often, and next to the barred owl the one that eats the greatest number of insects appears to be the little screech owl. We have sometimes found this bird near the electric lights out in the country, where perhaps, like the bats and toads, it was attracted by the great number of insects. On one occasion we found a number of frogs arranged on the top rail of a fence near a swamp. They were found torn open, disclosing that each had swallowed a number of May beetles. So an owl when he swallows a frog may get some beetles at second hand. Mr. Miller has, however, found some screech owl pellets that were largely composed of May beetle remains, and the insects had evidently been captured by the birds. The remains of three specimens of *Cychnus lecontei* have also been identified from what appeared to be screech owl pellets, collected by Mr. Miller.

In the economy of nature the pellets of hair, bones, feathers, etc.,

that are thrown away by the owls are much appreciated by the species of *Trox*, which find therein just the food to their liking. *Trox erinaceus* is most commonly found in the pellets on Staten Island, Mr. Chapin and I having secured forty-nine specimens ranging in date from February 25 to May 10. A single *Trox scaber* was collected in a pellet on May 16. Unless one is on the lookout these little beetles easily escape notice when the pellets are collected, for usually they are to be found beneath them and lie for some time motionless on the ground.

At the meeting of the New York Entomological Society, held May 19, 1903, Rev. J. L. Zabriskie exhibited the snipped-off butt ends of hairs taken from the stomach of *Trox unistriatus* collected some years before about a dead horse. The hairs were placed under a microscope, and all were found to have been cut off in the same oblique manner.

ON THE ORIGIN OF ENTOMOLOGICAL NAMES.

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When Linné began his work of classifying all nature his primary source of information was the existing classification made by Aristotle. In the middle of the eighteenth century almost all so-called learning was classical. The new school of science had awakened in Europe in mathematics and mechanics, but the great chemical awakening was to come half a century later and the development of knowledge of electricity came a few years later still. Linné's first effort was to identify all plants and animals mentioned in classic authors and to apply these names correctly in his new system. There is ample evidence that he made many gross blunders of translation, but there is no indisputable evidence that he altered or suppressed any existing classic names. Following him, the students of entomology plunged eagerly into the task of identifying Aristotelian species. Years later there was a revival of this line of study especially in Germany, but of late it has been neglected. A partial list of the important works on the origin of entomological terms is appended to this article. There does not seem, however, to be any bibliography on the subject of the derivation of names of insects mentioned in classic authors, their true meaning and